

ABSTRACT

A process for producing conductive polymers with excellent electrochemical strain per redox cycle is provided.

A process for producing conductive polymers by an electrochemical polymerization method, wherein said conductive polymers have deformation property by electrochemical redox, said electrochemical polymerization method is a polymerization method using electrolyte including organic compounds as solvents, and wherein said organic compounds include

(1) chemical bond species selected at least one from a group composed of the chemical bond consisting of ether bond, ester bond, carbon-halogen bond, and carbonate bond

and/or

(2) functional groups selected at least one from a group composed of functional groups consisting of hydroxyl group, nitro group, sulfone group, and nitryl group

in a molecule, and said electrolyte includes anions which include trifluoromethanesulfonate ion and /or plural of fluorine atoms which bond to central atom

is used.